



	Orbital Distance (a=AUs)	Orbital Period (P=years)	Orbital Eccentricity (e)	Orbital Inclination (i=degrees)	Mass (Solar)	Diameter (Solar)	Density (Earths)	Surface Gravity (Earths)	Metallicity (Solar)
<u>AB Mass Center</u>	0.0	...	...	...	...	...	...	...	...
<u>Sirius A</u>	6.43	50.1	0.592	136.5	2.14	1.68	...	...	1-7.4
<u>Disrupted H.Z.?</u>	4.76	6.8	0	136.5	...	...	...	...	...
<u>Sirius B</u>	13.4	50.1	0.592	136.5	1.03	0.0084	...	...	1-7.4

NOTE: This animation attempts to relate the possible orbits of Sirius AB (and a possibly disrupted habitable zone around Sirius A) to their common center of mass. To enlarge the display, the orbits have been arbitrarily rotated by 135 degrees. Although the initial display shows the system's actual orbital tilt (at an inclination of 136.5°) from the visual perspective of an observer on Earth, the orbital inclination of any planet that may be discovered someday around Star A would likely be different from that of the habitable zone orbit depicted here.

Sirius A and B form a close binary separated "on average" by only about 19.8 AUs of an orbital semi-major axis -- which is about the same as the distance between [Uranus](#) and our Sun ("[Sol](#)"). The companion star, is a white dwarf, stellar remnant and is so dim that it cannot be perceived with the naked eye. The distance separating Sirius A from its companion varies between 8.1 and 31.5 AUs as the two swing around in a highly

eccentric orbit ($e=0.59$) that takes 50.1 years to complete ([Willem Henrik van den Bos, 1960](#); in the new [Sixth Catalog of Visual Orbits of Binary Stars](#)).

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